



Application No. 09/473,556
Amendment dated November 2004
Reply to Office Action of 07 July 2004

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently amended) A method for receiving motion video, the method comprising the steps of:

receiving at a wireless terminal a first data stream from a motion video server via a wireless interface at a first bit rate, the first data stream comprising a motion video having initial presentation characteristics, and the wireless terminal comprising a video display;

commencing display of the received motion video having initial presentation characteristics on the video display; and

transmitting to the motion video server via the wireless interface a first display control command to alter presentation characteristics of the motion video and to alter the bit rate of the first data stream over the wireless interface, the first display control command having been entered by a user at the wireless terminal subsequent to the step of commencing display of the received motion video having initial presentation characteristics.

2. (Previously presented) The method of claim 1, wherein the first data stream further comprises a plurality of Intra-frames, each Intra-frame being separated from other Intra-frames by at least one of a plurality of Inter-frames, and wherein the motion video further comprises compressed and encoded data encoding a sequence of video images synchronized with a soundtrack, and wherein:

the receiving step further comprises receiving encoded signals by radio frequency receiver circuitry;

the transmitting step further comprises transmitting encoded signals by radio frequency transmitter circuitry; and

the step of displaying the motion video further comprises decompressing and decoding compressed and encoded video frames.

3. (Previously presented) The method of claim 2, wherein the initial presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and further comprise a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time, and wherein:

the first display control command comprises a display control command altering the initial presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

4. (Currently amended) The method of claim 3, further comprising the steps of: receiving at the wireless terminal a second data stream from the motion video server via the wireless interface at a second bit rate, the second data stream comprising the motion video having altered presentation characteristics;

commencing display of the motion video having altered presentation characteristics on the video display; and

transmitting to the motion video server via the wireless interface a second display control command to alter presentation characteristics of received motion video, the second display control command comprising a synchronization command to maintain synchronization between the audio data and the video data.

5. (Previously presented) The method of claim 4, wherein:
 - the altered presentation characteristics reflect the selection of the first display control command;
 - the altered presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and further comprise a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time;
 - the second display control command differs from the first display control command; and
 - the second display control command comprises a display control command altering the altered presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

6. (Previously presented) The method of claim 4, wherein:
 - the second data stream further comprises a plurality of Intra-frames, each Intra-frame of the second data stream being separated from other Intra-frames in the plurality of Intra-frames by fewer Inter-frames than separate the Intra-frames in the first data stream,
 - the altered presentation characteristics differ from the initial presentation characteristics, and
 - the altered presentation characteristics further comprise a faster than real-time presentation selected from the group consisting of the presentations associated with display control commands Fast Forward and Fast Rewind.

7. (Previously presented) The method of claim 4, wherein the first data stream further comprises video data synchronized with audio data, and wherein the first display control command comprises a first synchronization command to maintain synchronization between the audio data and the video data.

8. (Previously presented) The method of claim 4, wherein:
 - the wireless interface further comprises a digital cellular telephony network comprising a plurality of cellular base stations;
 - the wireless interface is connected to the motion video server via a network connection; and
 - the wireless terminal further comprises a cellular telephone.

9. (Currently amended) A computer program residing on a computer readable medium comprising instructions causing a wireless terminal comprising a video display:
 - to receive by radio frequency receiver circuitry at a wireless terminal a first data stream from a motion video server via a wireless interface at a first bit rate, the first data stream comprising a motion video having initial presentation characteristics;
 - to display the motion video having initial presentation characteristics on the video display; and
 - to transmit by radio frequency transmitter circuitry to the motion video server via the wireless interface a first display control command to alter presentation characteristics of the motion video and to alter the bit rate of the first data stream over the wireless interface, the first display control command having been entered by a user at the wireless terminal subsequent to commencing to display the motion video having initial presentation characteristics.

10. (Previously presented) The computer program of claim 9, wherein the motion video further comprises compressed and encoded data encoding a sequence of video images synchronized with a soundtrack, and the first data stream further comprises a plurality of Intra-frames, each Intra-frame being separated from other Intra-frames in the plurality by at least one of a plurality of Inter-frames, and wherein:

the instructions causing the wireless terminal to receive further comprise instructions causing the wireless terminal to receive encoded signals, and

the instructions causing the wireless terminal to display the motion video further comprise instructions causing the wireless terminal to decode and decompress the encoded and compressed data.

11. (Previously presented) The computer program of claim 10, wherein:

the initial presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and, a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time; and

the first display control command comprises a display control command altering the initial presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

12. (Currently amended) The computer program of claim 11, further comprising instructions causing the wireless terminal terminal:

to receive at the wireless terminal a second data stream from the motion video server via the wireless interface at a second bit rate, the second data stream comprising the motion video having altered presentation characteristics;

to display the motion video having altered presentation characteristics on the video display; and

to transmit to the motion video server via the wireless interface a second display control command to alter presentation characteristics of received motion video, the second display control command comprising a second synchronization command to maintain synchronization between the audio data and the video data.

13. (Previously presented) The computer program of claim 12, wherein:

the altered presentation characteristics reflect the selection of the first display control command;

the altered presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and, a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time;

the second display control command differs from the first display control command; and

the second display control command comprises a display control command altering the altered presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

14. (Previously presented) The computer program of claim 12, wherein:
 - the second data stream further comprises a plurality of Intra-frames, each Intra-frame of the second data stream being separated from other Intra-frames in the plurality of Intra-frames by fewer Inter-frames than separate the Intra-frames in the first data stream,
 - the altered presentation characteristics differ from the initial presentation characteristics, and
 - the altered presentation characteristics further comprise a faster than real-time presentation selected from the group consisting of the presentations associated with display control commands Fast Forward and Fast Rewind.
15. (Previously presented) The computer program of claim 12, wherein the first data stream further comprises video data synchronized with audio data, and wherein the first display control command comprises a first synchronization command to maintain synchronization between the audio data and the video data.
16. (Previously presented) The computer program of claim 12, wherein:
 - the wireless interface further comprises a digital cellular telephony network comprising a plurality of cellular base stations;
 - the wireless interface is connected to the motion video server via a network connection; and
 - the wireless terminal further comprises a cellular telephone.

17. (Currently amended) A wireless terminal, comprising:

radio frequency receiver circuitry configured to receive from a motion video server via a wireless interface at a first bit rate a first data stream comprising a motion video having initial presentation characteristics;

radio frequency transmitter circuitry configured to transmit to the motion video server via the wireless interface a first display control command to alter presentation characteristics of received motion video and to alter the bit rate of the first data stream over the wireless interface;

a video display coupled to the receiver circuitry and to the transmitter circuitry and configured to receive the first data stream and to display the motion video having the initial presentation characteristics;

a user-activated display control command input device coupled to the receiver circuitry, to the transmitter circuitry, and to the video display and configured to generate the first display control command subsequent to a display on the video display of at least a portion of the motion video having initial presentation characteristics and to transmit the first display control command to the transmitter circuitry; and

a power supply coupled to the receiver circuitry, to the transmitter circuitry, to the video display, and to the display control command input device.

18. (Previously presented) The wireless terminal of claim 17, wherein:

the first data stream further comprises a plurality of Intra-frames, each Intra-frame being separated from other Intra-frames in the plurality by at least one of a plurality of Inter-frames;

the motion video further comprises compressed and encoded data encoding a sequence of video images synchronized with a soundtrack; and

the video display further comprises decompression and decoding circuitry.

19. (Previously presented) The wireless terminal of claim 18, wherein:

the initial presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and, a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time; and

the first display control command comprises a display control command altering the initial presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

20. (Currently amended) The wireless terminal of claim 19, wherein:

the receiver circuitry is further configured to receive from the motion video server via the wireless interface at a second bit rate a second data stream comprising the motion video having altered presentation characteristics;

the transmitter circuitry is further configured to transmit to the motion video server via the wireless interface a second display control command to alter presentation characteristics of received motion video, the second display control command comprising a synchronization command to maintain synchronization between the audio data and the video data;

the video display is further configured to receive the second data stream and to display the motion video having altered presentation characteristics; and

the display control command input device is further configured to generate the second display control command and to transmit the second display control command to the transmitter circuitry.

21. (Previously presented) The wireless terminal of claim 20, wherein:
 - the altered presentation characteristics reflect the selection of the first display control command;
 - the altered presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and, a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time;
 - the second display control command differs from the first display control command; and
 - the second display control command comprises a display control command altering the altered presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

22. (Previously presented) The wireless terminal of claim 20, wherein:
 - the second data stream further comprises a plurality of Intra-frames, each Intra-frame of the second data stream being separated from other Intra-frames in the plurality of Intra-frames by fewer Inter-frames than separate the Intra-frames in the first data stream;
 - the altered presentation characteristics differ from the initial presentation characteristics; and
 - the altered presentation characteristics further comprise a faster than real-time presentation selected from the group consisting of the presentations associated with display control commands Fast Forward and Fast Rewind.

23. (Previously presented) The computer program of claim 20, wherein the first data stream further comprises video data synchronized with audio data, and wherein the first display control command comprising a first synchronization command to maintain synchronization between the audio data and the video data.

24. (Previously presented) The wireless terminal of claim 20, wherein:

the wireless interface further comprises a digital cellular telephony network comprising a plurality of cellular base stations;

the wireless interface is connected to the motion video server via a network connection; and

the wireless terminal further comprises a cellular telephone.

25. (Currently amended) A method of transmitting motion video in a wireless interface system, comprising:

receiving from a motion video server a first data stream at a first bit rate, the first data stream comprising a motion video having initial presentation characteristics;

transmitting to a wireless terminal via a wireless interface the first data stream;

receiving from the wireless terminal via the wireless interface a first display control command to alter presentation characteristics of received motion video and to alter the bit rate of the first data stream over the wireless interface system, the first display control command having been entered by a user at the wireless terminal after display of the motion video having initial presentation characteristics has commenced; and

transmitting to the motion video server the first display control command.

26. (Previously presented) The method of claim 25, wherein the first data stream further comprises a plurality of Intra-frames, each Intra-frame being separated from other Intra-frames in the plurality by at least one of a plurality of Inter-frames, and wherein:

the step of transmitting to a wireless terminal further comprises transmitting encoded signals by radio frequency transmitter circuitry;

the step of receiving from the wireless terminal further comprises receiving encoded signals by radio frequency receiver circuitry; and

wherein the motion video further comprises compressed and encoded data encoding a sequence of video images synchronized with a soundtrack.

27. (Previously presented) The method of claim 26, wherein:

the initial presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and further comprise a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time; and

the first display control command comprises a display control command altering the initial presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

28. (Currently amended) The method of claim 27, further comprising the steps of: receiving from the motion video server a second data stream at a second bit rate, said second data stream comprising the motion video having altered presentation characteristics; transmitting to the wireless terminal via the wireless interface the second data stream;

receiving from the wireless terminal via the wireless interface a second display control command to alter presentation characteristics of received motion video, the second display control command comprising a synchronization command to maintain synchronization between the audio data and the video data; and

transmitting to the motion video server the second display control command.

29. (Previously presented) The method of claim 28, wherein:
the altered presentation characteristics reflect the selection of the first display control command;

the altered presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and further comprise a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time;

the second display control command differs from the first display control command; and

the second display control command comprises a display control command altering the altered presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

30. (Previously presented) The method of claim 28, wherein:

the second data stream further comprises a plurality of Intra-frames, each Intra-frame of the second data stream being separated from other Intra-frames in the plurality of Intra-frames by fewer Inter-frames than separate the Intra-frames in the first data stream,

the altered presentation characteristics differ from the initial presentation characteristics, and

the altered presentation characteristics further comprise a faster than real-time presentation selected from the group consisting of the presentations associated with display control commands Fast Forward and Fast Rewind.

31. (Previously presented) The method of claim 28, wherein the first data stream further comprises video data synchronized with audio data, and wherein the first display control command comprises a first synchronization command to maintain synchronization between the audio data and the video data.

32. (Previously presented) The method of claim 28, wherein:

the wireless interface further comprises a digital cellular telephony network comprising a plurality of cellular base stations;

the wireless interface is connected to the motion video server via a network connection; and

the wireless terminal further comprises a cellular telephone.

33. (Currently amended) A computer program residing on a computer readable medium, the program comprising instructions causing a wireless interface system:

to receive from a motion video server a first data stream at a first bit rate, said first data stream comprising a motion video having initial presentation characteristics;

to transmit to a wireless terminal via a wireless interface the first data stream;

to receive from the wireless terminal via the wireless interface a first display control command to alter presentation characteristics of received motion video and to alter the bit rate of the first data stream, the first display control command having been entered by a user at the wireless terminal subsequent to the step of displaying the motion video having initial presentation characteristics; and

to transmit to the motion video server the first display control command.

34. (Previously presented) The computer program of claim 33, wherein:

the first data stream further comprises a plurality of Intra-frames, each Intra-frame of the first data stream being separated from other Intra-frames in the plurality of Intra-frames by at least one of a plurality of Inter-frames;

instructions to receive from the wireless terminal further comprise instructions to receive encoded signals by radio frequency receiver circuitry;

instructions to transmit to the wireless terminal further comprise instructions to transmit encoded signals by radio frequency transmitter circuitry; and

the motion video further comprises compressed and encoded data encoding a sequence of video images synchronized with a soundtrack.

35. (Previously presented) The computer program of claim 34, wherein:

the initial presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and further comprise a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time; and

the first display control command comprises a display control command altering the initial presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

36. (Currently amended) The computer program of claim 35, further comprising instructions causing the wireless interface system:

to receive from the motion video server a second data stream at a second data rate, said second data stream comprising the motion video having altered presentation characteristics;

to transmit to the wireless terminal via the wireless interface the second data stream;

to receive from the wireless terminal via the wireless interface a second display control command to alter presentation characteristics of received motion video; and

to transmit to the motion video server the second display control command, the second display control command comprising a synchronization command to maintain synchronization between the audio data and the video data.

37. (Previously presented) The computer program of claim 36, wherein:

the altered presentation characteristics reflect the selection of the first display control command;

the altered presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and, a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time;

the second display control command differs from the first display control command; and

the second display control command comprises a display control command altering the altered presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

38. (Previously presented) The computer program of claim 36, wherein:

the second data stream further comprises a plurality of Intra-frames, each Intra-frame of the second data stream being separated from other Intra-frames in the plurality of Intra-frames by fewer Inter-frames than separate the Intra-frames in the first data stream;

the altered presentation characteristics differ from the initial presentation characteristics, and

the altered presentation characteristics further comprise a faster than real-time presentation selected from the group consisting of the presentations associated with display control commands Fast Forward and Fast Rewind.

39. (Previously presented) The computer program of claim 36, wherein the first data stream further comprises video data synchronized with audio data, and wherein the first display control command comprises a first synchronization command to maintain synchronization between the audio data and the video data.

40. (Previously presented) The computer program of claim 36, wherein:

the wireless interface further comprises a digital cellular telephony network comprising a plurality of cellular base stations;

the wireless interface is connected to the motion video server via a network connection; and

the wireless terminal further comprises a cellular telephone.

41. (Currently amended) A wireless interface system, ~~comprising~~ comprising:

network receiver circuitry configured to receive from a motion video server a first data stream at a first bit rate, said first data stream comprising a motion video having initial presentation characteristics;

radio frequency transmitter circuitry coupled to the network receiver circuitry configured to transmit the first data stream from the network receiver circuitry to a wireless terminal;

radio frequency receiver circuitry configured to receive from the wireless terminal a first display control command to alter presentation characteristics of the motion video and to alter the bit rate of the first data stream;

network transmitter circuitry coupled to the radio frequency receiver circuitry configured to transmit the first display control command from the radio frequency receiver circuitry to the motion video server, the first display control command having been entered by a user at the wireless terminal subsequent to displaying motion video having initial presentation characteristics; and

a power supply coupled to the network receiver circuitry, to the radio frequency transmitter circuitry, to the radio frequency receiver circuitry, and to the network transmitter circuitry.

42. (Previously presented) The system of claim 41, wherein:
the first data stream further comprises a plurality of Intra-frames, each Intra-frame being separated from other Intra-frames in the plurality by at least one of a plurality of Inter-frames; and

the motion video further comprises compressed and encoded data encoding a sequence of video images synchronized with a soundtrack.

43. (Previously presented) The system of claim 42, wherein:
the initial presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and further comprises a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time; and
the first display control command comprises a display control command altering the initial presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

44. (Currently amended) The system of claim 43, wherein:

the network receiver circuitry is further configured to receive from the motion video server a second data stream at a second bit rate, the second data stream comprising the motion video having altered presentation characteristics;

the radio frequency transmitter circuitry is further configured to transmit the second data stream from the network receiver circuitry to the wireless terminal;

the radio frequency receiver circuitry is further configured to receive from the wireless terminal a second display control command to alter presentation characteristics of received motion video the second display control command comprising a synchronization command to maintain synchronization between the audio data and the video data; and

the network transmitter circuitry is further configured to transmit the second display control command from the radio frequency receiver circuitry to the motion video server.

45. (Previously presented) The system of claim 44, wherein:

the altered presentation characteristics reflect the selection of the first display control command;

the altered presentation characteristics comprise a presentation direction selected from the group consisting of forward and reverse, and, a presentation speed selected from the group consisting of slower than real-time, substantially real-time, and faster than real-time;

the second display control command differs from the first display control command; and

the second display control command comprises a display control command altering the altered presentation characteristics and is selected accordingly from the group consisting of Stop, Pause, Slow Forward, Play Forward, Fast Forward, Slow Reverse, Play Rewind, and Fast Rewind.

46. (Previously presented) The system of claim 44, wherein:

the second data stream further comprises a plurality of Intra-frames, each Intra-frame of the second data stream being separated from other Intra-frames in the plurality of Intra-frames by fewer Inter-frames than separate the Intra-frames in the first data stream;

the altered presentation characteristics differ from the initial presentation characteristics, and

the altered presentation characteristics further comprise a faster than real-time presentation selected from the group consisting of the presentations associated with display control commands Fast Forward and Fast Rewind.

47. (Previously presented) The system of claim 44, wherein the first data stream further comprises video data synchronized with audio data, and wherein the first display control command comprises a first synchronization command to maintain synchronization between the audio data and the video data.

48. (Previously presented) The system of claim 44, wherein:

the wireless interface further comprises a digital cellular telephony network comprising a plurality of cellular base stations;

the wireless interface is connected to the motion video server via a network connection; and

the wireless terminal further comprises a cellular telephone.

49 – 57 (Canceled)

58. (Currently amended) A motion video server for providing motion video to at least one wireless terminal via a wireless communication network, said motion video server comprising:

video data processing circuitry for receiving video data and converting it into a first data stream, wherein the first data stream comprises motion video having initial presentation characteristics:

transmission circuitry for transmitting the first data stream at a first data rate to the at least one wireless terminal via the wireless communication network; and

receive circuitry for receiving display control commands that have been generated and transmitted by the at least one wireless terminal, requesting alteration of the presentation characteristics of the motion video;

wherein upon receipt of a display control command the motion video server video data processing circuitry converts video data into a second data stream, wherein the second data stream comprises motion video having altered presentation characteristics.

59. (Previously presented) The motion video server of claim 58, further comprising a storage element for storing video data.

60. (Previously presented) The motion video server of claim 58, further comprising a multiplexer so that different data streams may be multiplexed for sending to different wireless terminals.

61. (New) The motion video server of claim 58, wherein the display control commands further request an alteration in the bit rate of the first data stream.